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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Paul R. Sprehe

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3694

32914

7590

04/25/2006

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EXAMINER

HARBECK, TIMOTHY M

ART UNIT

PAPER NUMBER

3628

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/805,959	<b>Applicant(s)</b> SPREHE, PAUL R.	
	<b>Examiner</b> Timothy M. Harbeck	<b>Art Unit</b> 3628	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6, 14-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mistr, Jr (hereinafter Mistr, US PAT 5,794,212) in view of Takriti et al (hereinafter Takriti, US PAT 5,974,403) in view of Collins (US PAT 3,661,542).

**Re Claim 1:** Mistr discloses a method for acquiring and distributing natural gas in relatively large quantities by a gas utility company wherein the purchase of gas from a gas producer and to be distributed by said utility is financed by an intermediary entity, the method comprising the steps of:

- Negotiating at least one of the purchase, transport and storage cost of said gas by one of said utility and said intermediary entity (Column 3, lines 42-52)
- Carrying out one of transporting said gas to a storage facility and identifying said gas at a predetermined storage facility (Col 3 line 64-Col 4 line 4)

Mistr does not explicitly disclose the steps of:

- Determining a quantity of gas to be purchased based at least in part on historic demand data for gas in an area served by said utility;

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- Acquiring funds to pay for gas purchased by said intermediary entity by issuing debt instruments by said intermediary entity through financial markets;
- Providing payment by said intermediary entity for said gas and taking title to said gas by said intermediary entity
- Determining gas deliverability capacity of said storage facility by selected measurements of gas pressure at said storage facility to provide a scheduling of repayment and rollover of said debt instruments
- Collecting payments by said intermediary entity from said utility for gas delivered to utility customers in accordance with a sales contract between said utility and said intermediary entity; and
- Conducting one of repayment and rollover of debt instruments at maturities thereof by said intermediary entity utilizing funds received from said utility pursuant to said sales contract

Takriti discloses a power trading and forecasting tool disclosing the steps of:

- Determining a quantity of gas to be purchased based at least in part on historic demand data for gas in an area served by said utility (Column 3 lines 29-33);
- Providing payment by said intermediary entity for said gas and taking title to said gas by said intermediary entity (Column 2 line 41-Column 3 line 6; "one of the ISO responsibilities is to settle financially with the parties involved in transmitting electric power)

- Collecting payments by said intermediary entity from said utility for gas delivered to utility customers in accordance with a sales contract between said utility and said intermediary entity (Column 2 line 41-Column 3 line 6; "bids are submitted," "Charges are calculated and billed to the different parties involved in the trade.")

It would have been obvious to anyone of ordinary skill at the time of invention to include the teachings of Tikriti to the disclosure of Mistr in order to facilitate the third party transfer of the power supply. With the deregulation of the energy market, consumer will have the option of choosing their supplier. In utilizing a third party entity for negotiations and payment processing with the utility company the individual consumer can take advantage of the aggregate demand of similar consumers. This aggregated demand increase the utilities incentive to lower their total cost, which provides saving to each user. Finally the intermediary would have to determine an estimate of the quantity of gas supplied so as not to have too large a surplus, and especially not a deficit of the product. In this manner they will not be left with the opportunity cost of the unused gas or leave the customer without the product they promised.

Collins discloses a short-term peak shaving of natural gas including the steps of

- Determining gas deliverability capacity of said storage facility by selected measurements of gas pressure at said storage facility (See abstract; Column 1 lines 15-21)

It would have been obvious to anyone of ordinary skill at the time of invention to include the teachings of Collins to the disclosure of Mistr so that the intermediary can have an effective estimate of the storage facilities' ability to deliver the product. In measuring the change in pressure of a storage facility, the intermediary can judge the amount of demand for the product over a time period, and utilize these measurements for future forecasting of both overall demand and a price schedule for a particular area.

The references do not explicitly disclose the steps of:

- Acquiring funds to pay for gas purchased by said intermediary entity by issuing debt instruments by said intermediary entity through financial markets;
- Conducting one of repayment and rollover of debt instruments at maturities thereof by said intermediary entity utilizing funds received from said utility pursuant to said sales contract

However these steps involving debt financing are notoriously well known in the art as a means to raise capital for a business. The intermediary entity is essentially purchasing a supply of power, in bulk, to be later supplied to individual customers. Because of the large amount of money needed to fund such a venture, debt securities provide a source of funding. In return for purchasing a debt instrument, the investors are expecting a return on this investment as well as their original capital. This is accomplished via the intermediary's main revenue stream, which are the funds received from their contracts. Because these steps were so notoriously known in the business community, it would have been obvious to anyone of ordinary skill at the time of

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invention to issue debt instruments as a means to raise the capital necessary to first enter into the contract, and then repay these instruments using future revenues.

Without such funding, the intermediary may not be able to otherwise pursue the deal as the utility company would not want to expose themselves to the risk of "loaning" the power to said intermediary. Furthermore, the intermediary would need to compensate the investors for handling this risk by providing a return based upon the revenue from the deal.

**Re Claim 2:** Mistr / Takriti / Collins discloses the claimed method supra and Takriti discloses a power trading and forecasting tool wherein computer implemented forecasting tools and, more particularly, to a tool for forecasting the spot-market prices of power and the trading transactions at different delivery points (Column 1, lines 18-21) which provides decision makers with probabilistic distributions so that they can manage risk efficiently.

**Re Claim 3:** Mistr / Takriti / Collins discloses the claimed method supra and Takriti further discloses a method wherein said risk assessment includes a determination of selected parameters with a geographic territory (Column 2, lines 23-26), specifically regional weather conditions.

**Re Claim 6:** Mistr / Takriti / Collins discloses the claimed method supra and Takriti further discloses a method wherein said parameters are selected from a group consisting of historical heating/cooling degree days, present weather forecast, and historical weather by one of an hourly and daily basis within said territories, respectively (Column 2, lines 23-26).

**Re Claim 14:** Mistr / Takriti / Collins discloses the claimed method supra and Takriti further discloses determining the anticipated producing rate of gas for storage in said storage facility (Column 3, lines 35-39; level of generation needed) while not explicitly disclosing determining the dollar value of debt instruments available periodically based on said rate of production and delivery to storage, this step is notoriously well known in the art and would have been obvious. Debt instruments represent a unit of ownership in the company. Since the revenues and production of the company is dynamic, the total value and therefore the dollar value of the debt instruments are dynamic as well and must be adjusted accordingly.

**Re Claim 15:** Collins further discloses a method including the steps of monitoring said gas pressure and fill quantities in said storage facility to determine storage facility performance (See abstract). While not explicitly disclosing determining the extent of rollover of debt instruments as said debt instruments reach maturity based on said storage facility performance, this step would have been obvious to anyone of ordinary skill in the art at the time of invention as it was notoriously well known for debt instruments to be repaid based upon the performance of the business. In this instance the performance of the business is measured by the ability to supply the end customers the product.

**Re Claim 17:** Mistr / Takriti / Collins discloses the claimed method supra and Takriti further discloses acquiring data with respect to said utility related to historical daily temperatures in a service territory (Column 2, line 23-26) served by said utility to



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determine the parameters of expected placement of gas in storage and withdrawal of gas from storage and with drawl of gas from storage for said utility.

Claims 4, 5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mistr / Takriti / Collins as applied to claim 3 above, and further in view of Sumic et al (hereinafter Sumic, US Pat 5,329,464).

**Re Claim 4:** Mistr / Takriti / Collins discloses the claimed method except for the explicit disclosure wherein said parameters are determined for subdivisions of said geographical territory defined by postal service code. Sumic discloses a utility layout design system wherein it is taught that many utilities have already implemented computer systems for storing and retrieving geographic data. Such systems are referred to as automated mapping and facilities management systems and typically reside within a geographic information system (GIS) as part of a database managed by a utility company (Column 2, lines 25-35). While Sumic does not explicitly disclose that the GIS is defined by postal service code, it could easily be adapted to do so using public knowledge of postal service codes. It would have been obvious to someone skilled in the ordinary art to include the teachings of Sumic to the disclosures of Mistr / Takriti / Collins so that a utility company could forecast risk associated with a specific area that they supply. It would be advantageous to do this, so that the utility company could set their service prices appropriately.

**Re Claim 5:** Sumic further discloses a method wherein said parameters are selected from a group consisting of residential housing units (Column 1, lines 15-16).

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**Re Claim 7:** Takriti further discloses forecasting demand patterns (Fig 1A-B “load forecasts”) for gas to be withdrawn from storage and comparing said demand patterns with the capability of withdrawal of gas from said storage facility by a facility operator (Column 3, lines 30-34 and Table 1).

**Re Claim 8:** Mistr further discloses notifying said facility operator of requirements to release gas (movement of energy) from storage in accordance with a schedule (Column 3, lines 41-52).

**Re Claim 9:** Takriti further discloses forecasting expected cash flows from customers serviced by said utility in said territories (Column 3, lines 38-40).

**Re Claim 10:** Mistr / Takriti / Collins discloses the claimed method *supra* but does not explicitly disclose determining the requirements for one of issuance and re-issuance of debt instruments and at least one of monetary amounts thereof and maturity dates thereof and issuing debt instruments as required to finance the purchase of said gas by said intermediary entity and corresponding to expected cash flows to said intermediary entity from said utility. However, these steps involving debt financing are notoriously well known in the art as a means to raise capital for a business. The intermediary entity is essentially purchasing a supply of power, in bulk, to be later supplied to individual customers. Because of the large amount of money needed to fund such a venture, debt securities provide a source of funding. In return for purchasing a debt instrument, the investors are expecting a return on this investment as well as their original capital. This is accomplished via the intermediary's main revenue stream, which are the funds received from their contracts. Because these steps were

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so notoriously known in the business community, it would have been obvious to anyone of ordinary skill at the time of invention to determine the requirements for the issuance and subsequent repayment of funds, so that the intermediary will receive enough funding to enter into the agreement and investors have an expected schedule of repayment. Without such plans in place the deal could fall through due to a lack of money and it may further be difficult to find investors if they are unsure of future repayments.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mistr / Takriti / Collins as applied to claim 1 above, and further in view of Mandler et al (hereinafter Mandler US Pat 5,732,400).

**Re Claim 11:** Mistr / Takriti / Collins discloses the claimed method except for the explicit disclosure wherein determining an interest rate to be one of charged to said utility and paid on said debt instruments by assessing risks of loss by said intermediary entity, said risks of loss selected from a group consisting of interest rate risk, default on repayment of said debt instruments risk, maturity schedule of debt instruments risk, gas measurement risk, physical loss of said gas during transmission and in storage risk, business conditions risk and economic risk. Mandler discloses a system and method for a risk based purchase of a good wherein a third party financial clearing house makes a dynamic real time risk classification of each buyer utilizing an online repository of credit data, including either in-house data or data obtained from a commercial credit service. The financial clearinghouse further determines a risk based discount rate (interest rate) as a function of the buyers risk classification. It would have been obvious

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to someone skilled in the ordinary art at the time of invention to include the teachings of Mandler to those of Mistr / Takriti / Collins because in any financing deal, if the risk associated with a loan is greater, there must be a greater incentive to complete the deal. If there were more risk associated with a certain transaction, then one would expect to receive a greater return on their investment as compensation.

**Re Claim 12:** Mandler further discloses determining an interest rate to be charged to said utility based on one or more of said risks (Column 3, lines 43-46).

**Re Claim 13:** Mandler further discloses assigning a weighted value to selected ones of said risks and determining a composite risk value (Column 3, lines 43-46; a risk based discount rate as a function of the buyers risk classification).

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mistr / Takriti / Collins as applied to claim 1 above, and further in view of Land et al (hereinafter Land US Pat 6,807,533 B1).

**Re Claim 16:** Mistr / Takriti / Collins discloses the claimed method except for the explicit disclosure including the step of monitoring the aging of accounts receivable of said utility to determine the risk associated with said intermediary entity achieving a predetermined return on investment. Land discloses a web-based method and system for managing accounts receivables, that discloses the claimed features (See abstract). While Land does not specifically state that the monitoring of accounts receivables is used to determine risk in investing, it is notoriously well known in the art that accounts

receivable data is used in evaluating risk, specifically to determine a company's ability to collect funds that are owed to them.

### ***Response to Arguments***

Applicant's arguments filed 2/13/2006 have been fully considered but they are not persuasive. The applicant has provided an affidavit swearing behind the previously referenced Lof disclosure. The reference has been withdrawn, however the amendments entered by the applicant have necessitated a further search with regards to the scope of the claims and new references have been provided. With respect to the applicant's arguments regarding the newly entered limitations, additional references and rationale has been provided that discloses these limitations. Because the added limitations changed the scope of the claims and necessitated a further search, this action is made final.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M. Harbeck whose telephone number is 571-272-8123. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Souh can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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